SHEPELEV, M.V. (Leningrad, K-18, Pesochnaya ul., 24, kv.1)

Vasoneural connections in the wall of the large intestine in liver cirrhosis in humans and in an experiment on animals. Arkh. anat. gist. i embr. 41 no.10:55-60 O '61. (MIRA 14:12)

1. Kafedra normal'noy anatomii (nachal'nik - chlen-korrespondent AMN SSSR prof. B.A.Dolgo-Saburov [deceased]) Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(LIVER--CIRRHOSIS) (INTESTINES--INNERVATION)

L 04747-67 EWT(1) IJP(c) AT/GD

ACC NR: AT6020454 (N) SOURCE CODE: UR/0000/65/000/000/0229/0234

AUTHOR: Pedenko, N. S.; Bolotin, L. I.; Faynberg, Ya. B.; Kharchenko, I. F.; Shepelev, N. P.

63
B+1

ORG: none

TITLE: High current linear induction accelerator

SOURCE: AN UkrSSR. Vzaimodeystviye puchkov zaryazhennykh chastits s plazmoy (Interaction of charged particle beams with plasma). Kiev, Naukova dumka, 1965, 229-234

TOPIC TAGS: plasma accelerator, plasma heating, betatron accelerator, Mev accelerator

ABSTRACT: A method of generating powerful electron beams and the use of these beams to generate large amplitude electrostatic waves and to heat a plasma are described. The linear betatron constructed for this study consists of an electron source and an accelerating section formed by a power transformer with unity transformation coefficient. The outline of the design is given in a block diagram and its operation is discussed. An electric field of 6 kv/cm was achieved in the accelerating section. The total potential of 200 kv resulted in electron beam currents of 1000 A. The analysis of the design has shown that the most suitable source of energy is a series of capacitors with spark-gap switching. This scheme eliminates synchronization problems and provides a desirable current pulse. The design reported here can basically serve as

Card 1/2

L 04747-67

ACC NR: AT6020454

a guide in the construction of a high current accelerator operating in the megavolt range. Orig. art. has: 2 figures, 1 table, 3 formulas.

SUB CODE: 18 SUBM DATE: 11Nov65/ ORIG REF: 005/ OTH REF: 002

Card 2/2

BRICHKIN, A.V.; SHEPKLEV, S.F.

End-cut ventilation with forced air prediscarge at the waste gas line. Izv.AN Kazakh.SSR.Ser.gor.dela,met.i stroimat. no.1:50-60 '52. (MLRA 9:8)

(Mine ventilation)

SHEPELEV, S.F., kandidat tekhnicheskikh nauk.

Founder of the study of mine ventilation. Vest.AN Kazakh.SSR 11 no.7: 23-26 Jl '54. (MLRA 7:11)
(Skochinskii, Aleksandr Aleksandrovich, 1874-) (Mine ventilation)

SOV/124-58-2-1998

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 70 (USSR)

AUTHOR: Shepelev, S. F.

TITLE: On the Design Calculation of the Ventilation of Haulage Workings in Terms of the Dust Factor (O raschete provetrivaniya otkatochnykh vyrabotok po pylevomu faktoru)

PERIODICAL: Izv. AN Kaz SSR, 1954, Nr 133. Ser. gornogo dela, metallurgii i stroymaterialov, Nr 3, pp 55-65

ABSTRACT: The author presents the results of an experimental investigation at the Dzhekazgan mines of the dustiness level in haulage workings during the pouring of the mined ore into the cars as a function of the ventilation-air flow rate. The dustiness level, characterized by the number of dust particles per cm^3, was measured by the particle-count method by means of a dust-particle precipitator. The air flow rate is determined by means of a traverse of the air velocities over the cross section of the working. Tests have established that the decrease in the dustiness level with increasing air flow rate follows a hyperbolic law. While the number of large (1 to 5 micron) dust particles in the ventilation air increases, that of the small

Card 1/2

On the Design Calculation of the Ventilation of Haulage Workings (cont.)

(<1 micron) particles decreases. The author adduces considerations relative to the setting up of standard requirements for ventilation air in haulage workings in which ore is poured from a hatch into cars.

V. I. Khanzhonkov

SHEPELEV, S.F., kandidat tekhnicheskikh nauk; TSOY, S., gornyy inzhener.

Effectiveness of ventilation in removing dust when boring in blind holes. Bor'ba s sil. 2:150-158 '55. (MLRA 9:5)

1. Institut gornogo dela Akademii nauk Kazakhskoy SSR (for TSoy)
(MINE VENTILATION) (BORING) (DUST--REMOVAL)

SHEPELEV, S.F., kandidat tekhnicheskikh nauk; RADCHENKO, G.A., kandidat tekhnicheskikh nauk

Ventilation of mines as a radical method of combating mine dust. (MLRA 9:1)
Vest.AN Kazakh.SSR 11 no.8:55-67 Ag'55.
(Mine ventilation) (Mine dusts)

SOV/124-57-5-5423

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 46 (USSR)

AUTHORS: Shepelev, S. F., Tsoy, S.

TITLE: A Comparative Evaluation of the Analytical Formulae for Calculating Air Curtains (Sravnitel'naya otsenka analiticheskikh formul rascheta vozdushnykh zaves)

PERIODICAL: Tr. In-ta gorn. dela AN KazSSR, 1956, Vol I, pp 133-139

ABSTRACT: A comparison is made of the respective results obtained when the curvilinear axis of an air curtain is calculated by the various theoretical and empirical formulae of a number of different authors. A method is demonstrated for calculating the quantity of outside air that may be expected to penetrate into a given space shielded by an air curtain. Bibliography: 9 references.

I. A. Shepelev

Card 1/1

Shepelev, S.F.

SHARIPOV, V.Sh.; SHEPELEV, S.F.

Scrubber-fan. Trudy Inst. gor. dela AN Kazakh. SSR 1:179-182 '56.
(Mine ventilation) (Air--Purification) (MIRA 11:1)

SHEPELEV, S.F.; TSOY, S.

Portable mine gas detectors. Trudy Inst. gor. dela AN Kazakh. SSR 1:183-185 '56. (MIRA 11:1)

(Mine gases) (Gas detectors)

SHEPELEV, S.F., TSOY, S.

Air shower as a means of protecting the miner from dust. Izv. AN Kazakh.SSR.Ser.gor.dela, met. i stroimat. no.11:114-117 '56. (MIRA 10:1)

(Miners--Diseases and hygiene) (Mine dusts)

SHKPELNV, Semen Fedorovich, RADCHENKO, Grigoriy Alekceyevich; KEKIN, A.A., kand.dat tekhnicheskikh nauk, otvetstvennyy redaktor; BRAILOVSKAYA, M.Ya., redaktor; KOROKINA, Z.P., tekhnicheskiy redaktor.

[Establishment of standards for the flow of air in the ventilation of mines with a silicosis risk] Ustanovlenie norm raskhoda vozdukha dlia provetrivaniia vyrabotok na silikozo-opasnykh rudnikakh. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1957. 122 p. (MLRA 10:4)
(Mine ventilation)

SHEPELEV, S.P.

Prospects for the use of air barriers in mines. Trudy Inst. gor. dela AN Kazakh. SSR 2:166-172 '57. (MIRA 10:12)
(Mine ventilation)

SOV/124-58-11-12408

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 65 (USSR)

AUTHORS: Shepelev, S.F., Tsoy, S.

TITLE: A Plane Air Sheet-jet in the Cross Section of a Mine (Ploskaya vozdushnaya struya v poperechnom sechenii vyrabotki)

PERIODICAL: Tr. In-ta gorn. dela. AN KazSSR, 1958, Vol 3, pp 129-146

ABSTRACT: The paper quotes the results of the first stage of an investigation and evaluation of the efficiency and applicability of air curtains for the purpose of regulating air distribution in underground mine workings. During the investigations made on models of mines the form of the axis, the profile of the field of the air velocities of the stream, and the amount of ejected air were determined.

V. N. Gusev

Card 1/1

SHEPELEV, S.F.; TSOY, S.

Air stream flowing steadily from a crevasse into space limited in height by parallel planes. Trudy Inst. gor. dela AN Kazakh. SSR no.3:160-171 '58. (MIRA 11:6)
(Aerodynamic measurements)

TSOY, S.; SHEPELEV, S.F.

Regulating the distribution of air in mines by air curtains through the interaction of meeting air streams. Vest. AN Kazakh. SSR 14 no.8:56-66 Ag '58. (MIRA 11:10)
(Mine ventilation) (Air curtains)

SHEPELEV, S. F. and TSOY, S.

"Flat currents, etc.," in book Conference on applications of gas dynamics, "TRID" series, Publishing Office of the Academy of Science of the Kazakh SSR, Alma-Ata, 1959.

Shepelev, S.F.

PHASE I BOOK EXPLOITATION SOV/2271

10(2)

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy (Transactions of the Conference on Applied Gas Dynamics) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 235 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Ed.: V.V. Aleksandriyskiy, Tech. Ed.: Z.P. Rorokina; Editorial Board: L.A. Vulis (Resp. Ed.), V.P. Kashkarov, T.P. Lontyeva, and B.P. Ustimenko.

PURPOSE: This book should be of interest to scientists and engineers working on problems of applied gas dynamics and may be of use to students.

COVERAGE: This book presents reports and brief summaries of the discussions which took place at the Conference on Applied Gas Dynamics in Alma-Ata in October 1956. The conference was subdivided into three areas of applied gas dynamics: jet flows of fluids and gases, the aerodynamics of heating processes, and the discharge of a fluid. The practical value of the transactions of the conference is in the development of theory, treatment applied to heat-consists and methods for systematic measurement for which, in most culation and other industrial processes for which, in most ing, furnace, aerodynamic phenomena are decisive factors. cases, aerodynamic phenomena are decisive factors.

Table of Contents

Akimov, M.I. Survey of Articles on Jet Theory by the Chair of Hydro- and Aerodynamics of the Leningrad Polytechnical Institute imeni M.I. Kalinin	107
Shepelev, S.F., and S. Tsoy. Two-dimensional Jet in the Cross Section of an Air Duct	108
Bespalova, V.G. Use of Hydrodynamic Calculating Machines for the Solution of Jet Problems	115
Brief Summary of the Discussions	122
Session of October 25, 1956 (morning)	
Kaigal'son, B.D. Some Problems in the Aerodynamics of Cyclone Combustion Chambers and the Combustion of Coal Dust	123
Ustimenko, B.P. Aerodynamics of Twisted Jets and Cyclone Chambers	134

SHEPELEV, S.F.

Efficiency of one-side air barriers on the air distribution in underground workings. Izv.AN Kazakh.SSR. Ser.gor.dela no.2: 91-99 '59. (MIRA 13:4)

(Mine ventilation)

SHEPELEV, S.F.

Efficiency of bi-directional air curtains in redistributing air in mines. Izv. AN Kazakh. SSR. Ser.gor.dela no.2:98-104 '60.(MIRA 13:10)
(Mine ventilation)

SHEPELEV, S.F., TSOY, S., ZALEVSKIY, Yu.A.

Air curtains as means of controlling air distribution on mines and methods to calculate them under the effect of countercurrents. Trudy Inst. gor. dela AN Kazakh. SSR 5:132-155 '60.
(MIRA 13:8)

(Mine ventilation)

SHEPELEV, S.F.

Dustiness and the amount of air needed for mine ventilation during operations with continuous dust formation. Trudy Inst. gor. dela AN Kazakh. SSR 6:155-165 '60. (MIRA 13:12)
(Mine ventilation)

SHEPELEV, S.F.; ZALEVSKIY, Yu.A.

Equipment for uniform air distribution in underground mine workings by means of air curtains. Trudy Inst. gor. dela AN Kazakh. SSR 6:183-191 '60. (MIRA 13:12)
(Mine ventilation) (Air curtains)

SHEPELEV, S.F., kand.tekhn.nauk; RADCHENKO, G.A., kand.tekhn.nauk

All-Union Conference on Mine Ventilation and Dust Removal. (MIRA 13:9)
Vest.Kazakh.SSR 16 no.9:92-93 S '60.
(Mine ventilation--Congresses)

SHEPELEV, S.E.; ZALEVSKIY, Yu.A.; NESTERIN, V.G.

Calculation of round, free, turbulent jets moving in limited areas of chamber-type workings. Izv.AN Kazakh.SSR.Ser.gor.dela no.2:100-106 '61. (MIRA 15:2)

(Mine ventilation)

SHEPELEV, S.F.

Comparative evaluation of the performance of one-way and two-way curtains in redistributing air in underground workings. Trudy Inst.gor.dela AN Kazakh.SSR 8:130-136 '61. (MIRA 15:4)
(Mine ventilation)

SHEPELEV, S.F.

Use of air screens to control leaks of air through the mouths of baring workings. Trudy Inst.gor.dela AN Kazakh.SSR 8:164-172 '61. (MIRA 15:4)

(Mine ventilation)

SHEPELEV, S.F.

State of and ways to improve the ventilation of Kazakhstan mines. Trudy Inst.gor.dela AN Kazakh.SSR 9:171-181 '62. (MIRA 15:8)
(Kazakhstan--Mine ventilation)

DZHAKUPBAYEV, A.N.; SHEPELEV, S.F.; SELIVANOV, G.I.

Gas condition in workings of the Tekeli Mine in the case of a developed endogenic underground fire. Trudy Inst.gor.dela AN Kazakh.SSR 9:188-197 '62. (MIRA 15:8)
(Tekeli region (Kazakhstan)--Mine fires)

SHEPELEV, S.F.; ZALEVSKIY, Yu.A.

Using air curtains to create ventilation in chamber-shaped workings. Trudy Inst. gor. dela AN Kazakh. SSSR 10:168-180 '63. (MIRA 16:8)

(Mine ventilation)

SHEPELEV, S.F.; ZALEVSKIY, Yu.A.

Structure of a circular, free, turbulent flow acting in chamberlike workings. Trudy Inst. gor. dela AN Kazakh.SSR 12: 130-142 '63. (MIRA 17:8)

KEKIN, A.A.; SHEPELEV, S.F.; BRAGIN, N.G.

Controlling dust in the mining industry of Kazakhstan. Trudy Inst. g. t.dela AN Kazakh.SSR 15:3-10 '62. (MIRA 18:2)

SHELELEV, S.F.; ZALEVSKIY, V.A.[deceased]; NESTERIN, V.G.

Means of distributing air at large-tonnage mines in Kazakhstan.
Trudy Inst.gor.dela AN Kazakh.SSR 15:64-66 '64.
(MIRA 18:2)

SHEPELEV, S.F.; ZALEVSKIY, Yu.A. [deceased]

Calculation of a conical air duct made of a longitudinal slot of uniform cross section with even consumption and rate of air flow. Trudy Inst.gor.dela AN Kazakh.SSR 15:67-69 '64.

(MIRA 18:2)

SHEPELEV, S.F.

Classification of the means of regulating the quantity of air in underground workings. Trudy Inst.gor.dela AN Kazakh.SSR 15:17-19 '64. (MIRA 18:2)

Shepelev, S.I.

USSR/Forestry - Forest Economy. K-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10585

Author : Shepelev, S.I.
Inst : -
Title : In the Vladivostok Forest Economy.

Orig Pub : Lesn. kh-vo, 1957, No 2, 61-67

Abstract : A short account is given of the organization of the forest economy on the territory near the city of Vladivostok, which culminated in the creation (1947) of the Vladivostok Forest Economy with five forest areas. The activity of the forest economy is described, and the success of the measures taken to create forests on unforested areas is pointed out.

Card 1/1

SHEPELEV, S.N.

Redesign of heating furnaces with hearths on wheels. Kuz.-shtam. proizv. 3 no.7:33-35 Jl '61. (MIRA 14:6)
(Furnace, Heating)

LEVCHENKO, I., inzh.; SHEPELEV, V., inzh.

Shortening the building time for thermal electric plants. Prom.-stroi. i inzh.soor. 3 no.2:7-12 Mr-Ap '61. (MIRA 15:3)
(Electric power plants)

SHEPELEV, V.

Waterside pumping divisions of thermal electric plants made of precast reinforced concrete. Prom.stroi.i inzh.soor. 4 no.1: 47-51 Ja-F '62. (MIRA 15:8)

1. Zamestitel' glavnogo inzhenera tresta "Donbassenergostroy". (Electric power plants) (Precast concrete construction)

L 27333-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6008068 SOURCE CODE: UR/0190/65/007/011/1894/1898

AUTHORS: Maklakov, A. I.; Pimenov, G. G.; Shepelev, V. I.

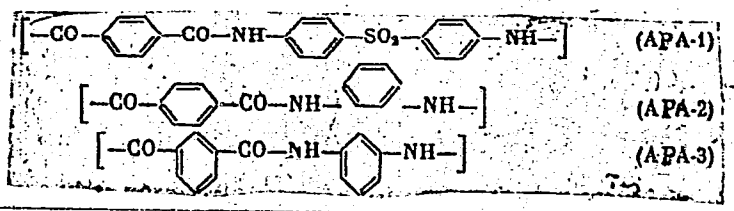
ORG: Kazan State University (Kazanskiy gosudarstvennyy universitet)

TITLE: Evaluation of the mobility of macromolecules in amorphous regions of crystalline polymers by nuclear magnetic resonance

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 11, 1965, 1894-1898

TOPIC TAGS: macromolecular chemistry, nuclear magnetic resonance, crystalline polymer

ABSTRACT: NMR spectra of polyethyleneterephthalate, isotactic polystyrene, and a number of aromatic polyamids with monomeric units

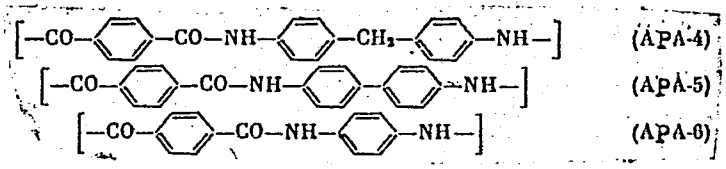


Card 1/2

UDC: 678.01:53

L 27333-66

ACC NR: AP6008968



(APA-4)

(APA-5)

(APA-6)

were studied at 20--350C by using a scheme described by A. I. Maklakov and G. G. Pimenov (Dokl. AN SSSR, 157, 1413, 1964). It was shown that the temperature T_n of appearance of the narrow component in the complicated NMR signal of the above polymers may serve as a measure of the mobility of the macromolecules in their amorphous areas. The T_n of 25 samples has been determined. The relationship between the structure of the polymer and T_n is discussed. "The authors express their gratitude to R. S. Balakirev, G. A. Kuznetsov, and L. B. Sokolov for supplying a number of samples." Orig. art. has: 1 table and 2 figures.

SUB CODE: 07/ SUBM DATE: 07Dec64/ ORIG REF: 008/ OTH REF: 009

Card 2/2

SHEPELEV, V.I.; MAKLAKOV, A.I.

Nuclear magnetic resonance in polyphenylenimine. Zhur. strukt. khim. 6 no.2:298-299 Mr-Ap '65. (MIRA 18:7)

1. Kazanskiy gosudarstvennyy universitet.

137-58-3-5241

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 112 (USSR)

AUTHOR: Shepelev, V. N.

TITLE: Welding of Rails in Railroad Stations (Svarka rel'sov na stantsionnykh putyakh)

PERIODICAL: Put' i putevoye kh-vo, 1957, Nr 9, pp 31-32

ABSTRACT: The author describes a simple, mold-type, rail welding method requiring no special equipment or hard-to-get materials; the method was proposed by an experimental welding shop and proved to be most effective for in-place welding of rails in switchyards and storage yards in sections up to 75-100 m long. The method of preparing the rail heads to be welded is described together with the procedure for the positioning of rails, prior to welding, so as to form a 14-16 mm gap between them, at the same time causing them to have a 1 percent slope on either side of the junction. A metal shim is placed at the base of the butt, and half-sectional Cu molds are installed in order to prevent flowing of metal and to impart the required shape to the surface of the weld. Also described is the execution of the arc welding process with subsequent filling

Card 1/2

SHEPSLEV, V.N., inzh.

Welding rail fastenings. Put' i put. khoz. no.3:29-31 Mr '58.
(MIRA 11:4)
(Railroads--Rails--Fastenings)
(Welding)

8(3) SOV/112-59-4-6820

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 59 (USSR)

AUTHOR: Shepelev, V. N.

TITLE: How Electric-Station Outages Can Be Prevented

PERIODICAL: Put' i putevoye khozyaystvo, 1958, Nr 6, pp 32-33

ABSTRACT: Methods of repairing ZhES-2, ZhES-4, and ZhES-9 mobile electric stations, adopted on the Zabaykal'skaya and Donetskaya railroads, are reported; selenium rectifiers are repaired.

Card 1/1

SHEPELEV, V.N., inzh.

Frogs and their maintenance. Put' i put.khoz. no.11:36-37 N '58.
(MIRA 11:12)

(Railroads--Track)

SHEPELEV, Vasiliy Nikolayevich; OBUKHOV, Aleksandr Vasil'yevich; BERESTOVOV, Ye.I.,inzh., retsenzent; ABRAGAM, S.R., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Welding and building-up of rails and railroad frogs] Svarka i naplavka rel'sov i krestovin. Moskva, Gos.transp.zhel-dor. izd-vo, 1959. 179 p. (MIRA 13:2)
(Railroads--Rails--Welding)
(Railroads--Maintenance and repair)

SHEPELEV, V.V., inzh.; SHEPELEV, V.N., inzh.

Improving rail grinding. Put' i put.khoz. no.11:29-30 N '59. (MIRA 13:4)
(Railroads--Rails)

SHEPELEV, V.N., inzh.

Advice for welders and grinders. Put' i put.khoz. 4 no.9:26-27 S '60. (MIRA 13:9)

(Railroads--Rails--Welding)

SHEPELEV, V.N., inzh.

Is it possible to weld rails to the rail supports? Put' i put.khoz. 5 no.6:42 Je '61. (MIRA 14:8)
(Railroads--Rails--Welding)

SHEPELEV, V.N., inzh.-svarshchik

Ways to improve the method of electric arc welding in a molten bath. Put' i put.khoz. 7 no.1:24-25 '63. (MIRA 16:3)
(Railroads--Rails--Welding)

SHEPELEV, V.N., inzh.

How to prepare the refractory mass for thermite welding. Put' i put.khoz. 7 no.4:43-45 '63. (MIRA 16:3)
(Refractory materials) (Railroads—Rails—Welding)

SHEPELEV, V.N., inzh.

Method for the transportation and storage of thermit. Put' i put. khoz. 8 no.4:44 '64. (MIRA 17:4)

SHEPELEV, V.N., inzh.

Ways to secure high-quality termite welding. Put' i put.khoz. 9 no.5:39-40 '65. (MIRA 18:5)

SHEPELEV, Vasiliy Mefod'yevich; KRASNIK, Mikhail Ivanovich; KODABASHEVA, R.S., inzh., red.

[Manufacture and assembly of prestressed concrete cross bars and slabs for bunkers] Izgotovlenie i montazh predvaritel'no napriazhennykh zhelezobetonnykh rigelei i plit bunkerov; opyt tresta "Donbassenergostroi." Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1961. 30 p. (MIRA 14:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. Byuro tekhnicheskoy informatsii. 2. Zamestitel' glavnogo inzhenera tresta "Donbassenergostroy" (for Shepelev). 3. Glavnyy inzh. Staro-Beshevskogo zavoda "Stroydetal'" (for Krasnik).
(Electric power plants--Equipment and supplies)
(Precast concrete construction)

PILIPENKO, V.I., inzh.; SHEPELEV, V.M., inzh.

Built-up (no-attic) roofs made of mesh-reinforced fly-ash foamed concrete. Energ. stroi. no.22:55-59 '61. (MIRA 15:7)

1. Kurakhovskiy zavod stroymaterialov (for Pilipenko). 2. Trest "Donbassenergostroy" (for Shepelev).
(Roofing, Concrete) (Lightweight concrete)

PILIPENKO, V.I., inzh.; SHEPELEV, V.M., inzh.

Protection of the reinforced of fly-ash foamed concrete articles from corrosion. Energ. stroi. no.22:95-98 '61. (MIRA 15:7)

1. Kurakhovskiy zavod stroymaterialov (for Pilipenko). 2. Trest "Donbassenergostroy" (for Shepelev).
(Concrete reinforcement) (Protective coatings)

BERENSHTEYN, S.A.; VAYSLEYB, V.P.; VARENIK, I.F.; DOBRYNCHENKO, M.V.; YEGOROV, B.P.; KLISENKO, Yu.F.; MOGILEVSKIY, I.I.[deceased]; PEREYASLAVTSEV, N.A.; PILIPENKO, V.I.; SAPOZHNIKOV, F.V., inzh.; SHEPELEV, V.M.; SHMULEVICH, M.L.; YARMOLINSKIY, I.M.; SHAGALOV, Ye.S., red.; KORIKOVSKIY, I.K., red.; LARIONOV, G.Ye., tekhn. red.

[Construction of the V.I.Lenin State Regional Electric Power Plant in Simferopol] Opyt stroitel'stva Simferopol'skoi GRES im. V.I.Lenina [By] S.A.Berenshtein i dr. Moskva, Gosenergoizdat, 1962. 151 p. (MIRA 15:6)

(Simferopol--Electric power plants)

PILIPENKO, Viktor Ivanovich; SHEPELEV, Vasiliy Mefedovich; FINKINSHTEYN, B.A., inzh., red.

[Reinforced foamed ash concrete panels for exterior walls of the State Regional Electric Power Plant; practices of the Kurakhov Plant for Reinforced Concrete Elements of the "Donets Basin Power Plant Construction" Trust] Armopenozolobetonnye paneli dlia naruzhnykh sten GRES; opyt Kurakhovskogo zavoda zhelezobetonnykh konstruktsii tresta "Donbassenergostroi." Moskva, Gosstroiizdat, 1963. 15 p. (MIRA 17:9)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Glavnyy inzhener Kurakhovskogo zavoda zhelezobetonnykh konstruktsiy (for Pilipenko). 3. Zamestitel' glavnogo inzhenera tresta "Donbassenergostroy" (for Shepelev).

PILIPENKO, V.I., inzh.; SHEPELEV, V.M., inzh.

Manufacture of large reinforced concrete structures for the State Regional Electric Power Plant No.2400. Energ. stroi. no.34:6-12 '63. (MIRA 17:1)

1. Kurakhovskiy zavod zhelezobetonnykh konstruktsiy (for Pilipenko).
2. Trest "Donbassenergostroy" (for Shepelev).

SHKUTINA, F.M.; SHEPELEV, V.M.; KHVOSTOVA, V.V.

Study of fertility and the characteristics of meiosis in wheatrye amphidiploids. Biul. MOIP. Otd. biol. 69 no.1:20-27 Ja-F '64. (MIRA 17:4)

LEVSHENKO, I.F., inzh.; SHEPELEV, V.M., inzh.

Thermal treatment of the anchorage rods of tendons of prestressed concrete construction elements. Bet. i zhel.-bet no.8:376-377 Ag '60. (MIRA 13:8)

(Prestressed concrete)

KUSHKO, V.M.; SHEPELEV, V.M.

Influence of a tourniquet on the toxicity of muscle extracts. Uch.zap. 2-go MGMI 17:87-95 '58. (MIRA 13:7)

1. Zaveduyushchiy kafedroy biokhimii 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova (for Kushko).
(BLOOD--CIRCULATION, DISORDERS OF) (TISSUE EXTRACTS)
(MUSCLE) (SHOCK)

L 22717-66 EWT(d)/EWP(1) IJP(c) BR/GG

ACC NR: AP6002937 (A) SOURCE CODE: UR/0286/65/000/024/0104/0104

AUTHORS: Alferov, A. V.; Vashchenko, V. P.; Glushkov, N. P.; Shepelev, V. R.

ORG: none

TITLE: A device for the automatic verification of angle-code converters. Class 42, No. 177165.

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 104

TOPIC TAGS: code converter, code evaluation, error automatic data correlation, error detection code

ABSTRACT: This Author Certificate presents a device for the automatic verification of angle-code converters. The device includes a reference converter and the converter under examination, both of which are rotated by a single motor through a reduction drive. The device also includes a circuit for comparison of the code signals. This device provides simultaneous verification of all code paths and automates the process of initially setting the converters. The registers which store the codes of the reference converter and the converter under examination are connected through a circuit of discharge comparison of the codes to the

Card 1/3 UDC: 681.142—523.8.001.57

register for indicating the errors. These registers are also connected through the same circuit to a control device which engages and disengages the electromagnetic clutch (see Fig. 1).

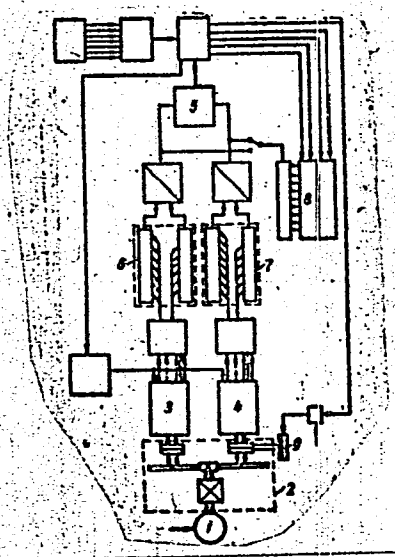


Fig. 1. 1 - Motor; 2 - reduction gear; 3 - reference converter; 4 - converter under examination; 5 - circuit for comparison of the code signals; 6 and 7 - storage registers; 8 - register indicating the error; 9 - electromagnetic clutch.

L 22717-66

ACC NR: AP6002937

The clutch engages at the moment of coincidence of the codes of the reference converter and the converter under examination. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 01Nov63

Card 3/3 UDC

SHEPELEV, V.V., inzh.; SHEPELEV, V.N., inzh.

Improving rail grinding. Put' i put.khoz. no.11:29-30 N '59. (MIRA 13:4)
(Railroads--Rails)

SHEPELEV, V.V., inzh.

Manually operated grinding machine. Put' i put.khoz. no.11:34-35 N '58. (MIRA 11:12)

(Grinding machines)

SHEPELEV, Ye., polkovnik meditsinskoy sluzhby

Ecological system in space flight. Av. i kosm. 45 no.1:20-25 Ja '63. (MIRA 16:1)

(Life support systems(Space environment))

TEPERMAN, Ye.Ya.; SHEPELEV, Ye.G., otvetstvennyy redaktor; SVIRIDOVA, F.A., redaktor; NADEINSKAYA, A.A., tekhnicheskiy redaktor.

[Pumps in coal preparation plants] Nasosy na ugleobogatitel'nykh fabrikakh. Moskva, Ugletekhizdat, 1954. 133 p. (MLRA 8:1)
(Coal preparation) (Pumping machinery)

26466
S/177/60/000/009/001/001
D219/D303

27.2400

AUTHORS: Dorodnitsyna, A.A., Candidate of Biological Sciences, Savinich, F.K., Talapin, V.F., Lieutenant-Colonel, Medical Services, Shepelev, Ye. Ya., Lieutenant-Colenel, Medical Services

TITLE: Endurance of high temperatures by humans and the importance of heat-protecting clothes

PERIODICAL: Voyenno-meditsinskiy zhurnal, no. 9, 1960, 72 - 74

TEXT: The present work is a continuation of earlier investigations (Ref. 1: Voyenno-Meditsinskiy Zhurnal, No. 8, 56 - 58, 1958), and compares the influence of normal and semi-seasonal clothing of pilots at temperatures of 70, 80, 90, 100, 110, 120°C. The experiments were carried out in a heat chamber where the air was rarified to correspond to an altitude of 8000 meters. The subjects wore cotton underclothes under a high-altitude compensating dress. The outer clothing in one group consisted of cot-

Card 1/ 3

Endurance of high temperatures...

ton flight dress, and in the other group of wadded semi-seasonal flight dress. Wool socks and leather boots were worn on the legs, at temperatures higher than 100°C the hands were covered by wool gloves. In all 90 experiments were carried out. Heart rate increased by about 40 - 60, systolic arterial pressure increased by 25 - 30 mm, diastolic pressure decreased by 34 mm, resulting in a considerable increase of pulse pressure. Body temperature had risen by 1.6 - 2.3 °C, reaching in a number of cases 39.4 - 39.5°C. At the end of the experiments, the state of the subjects was characterized by a marked hyperthemia, approaching heat stroke, marked disturbance of the cardiovascular system and of the water balance of the organism. The total water loss of the organism, the quantity of evaporated water and the amount absorbed by the clothing was determined by weighing. The authors state that the endurance of high temperatures is basically related to the endurance of the heat accumulated in the organism. The limiting endurable amount of heat accumulated

Card 2/3

Endurance of high temperatures...

is constant within the range of temperatures investigated and it is 63±10 kilocalories per square meter of the body surface. The sooner this limiting value is reached the shorter the time duration endurable at high temperatures. The experiments show that the speed of heat accumulation in the organism is lower with the semi-seasonal dress. It appears that the external heat load operating on the organism is in the average 25% lower with the semi-seasonal dress. Water losses through evaporation, heat transmission and accumulation of water in the clothing were also lower with this types of dress. Reduced sweating is a direct consequence of the lower external heat loading. Although the heat transmission is reduced by 15%, evaporation takes place more effectively because of the smaller absorption in the clothing. The average time endured at high temperatures in the two kinds of clothing are shown in tabulated form. There are 4 tables and 1 Soviet-bloc reference.

SUBMITTED: May, 1959

Card 3/3

DORODNITSYNA, A.A. (Moskva); SHEPELEV, Ye.Ya. (Moskva)

Heat exchange in man during the exposure to high temperatures. (MIRA 13:12)
Fiziol. zhur. 46 no. 5:607-612 My '60.
(HEAT—PHYSIOLOGICAL EFFECT) (BODY TEMPERATURE)

7.

S/865/62/001/000/015/033
L028/E185

AUTHORS: Antipov, V.V., Bayevskiy, R.M., Gazenko, O.G., Genin, A.M., Gyurdzhian, A.A., Zhukov-Verezhnikov, N.N., Zhuravlev, B.A., Karpova, L.I., Parfenov, G.P., Seryapin, A.D., Shepelev, Ye.Ya., Yazdovskiy, V.I.

TITLE: Some results of medical and biological investigations in the second and third satellites

SOURCE: Problemy kosmicheskiy biologii. v.1. Ed. by N.M.Sisakyan. Moscow, Izd-vo AN SSSR, 1962. 267-284

TEXT: The maintenance of life conditions is discussed with special reference to the second Soviet satellite. During the flight the proportion of oxygen in the air of the cabin could be maintained at 21 to 24%, whereas the relative humidity rose from 37 to 47%. The temperature ranged from 16 to 19°C. Water and food were provided together in a mixture solidified with agar, in order to facilitate automatic dispensing in conditions of weightlessness. This was carried out twice daily by command signals from Earth. Telemetric recording of the physiological parameters of the dogs Belka and Strelka during space flight showed the

Card 1/2

S/865/62/001/000/015/033
E028/E185

Some results of medical ...

occurrence of tachycardia as a result of acceleration, noise and vibration; there was also a rise in the respiration rate: a return to normal pre-flight values occurred during the condition of weightlessness. Movements of the animals were observed by television cameras and also by potentiometric sensors mounted in the harness. No abnormalities were observed in the behavior of the animals after return to earth or during the following 3 months. It was concluded from the experiments carried out in the second satellite that dogs could readily be accustomed to space flight conditions. Genetic changes were noted in the progeny of actinomycetes, plant seeds and fruit flies after return from space flight. The third space satellite contained two dogs (Pchelka and Mushka), two guineapigs, two rats, twenty six mice, fruit flies, seeds and other biological materials which were included in order to study the effects of cosmic radiation. The results are not described.

Card 2/2

GENIN, A. M.; SHEPELEV, Ye. Ya.

"Some problems and principles in formation of the environment on the basis of circulation of matter."

report submitted for 15th Intl Astronautical Cong, Warsaw, 7-12 Sep 64.

ACCESSION NR: AT4037690 S/2865/64/003/000/0204/0209

AUTHOR: Korotayev, M. M.; Kustov, V.V.; Meleshko, G. I.; Poddubnaya, L. T.; Shepelev, Ye. Ya.

TITLE: Toxic gaseous substances liberated by Chlorella

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy* kosmicheskoy biologii, v. 3, 1964, 204-209

TOPIC TAGS: algae, respiration, toxicology, photosynthesis, carbon monoxide, closed ecological system, manned space flight, air purification

ABSTRACT: The liberation of toxic gaseous substances in the process of vital photosynthetic activity of Chlorella pyrenoidosa S-39 was studied in six experiments lasting 2 to 12 days and in eight experiments lasting 7 to 26 hr. It has been established that during cultivation of Chlorella the air of the system accumulates carbon monoxide, nitrogen oxides, hydrocarbons, and, perhaps, methane. Carbon monoxide concentration in different experiments ranged from 0.003 to 0.09 mg/l. In most cases the amounts of carbon monoxide produced exceeded permissible limits. The content of nitrogen oxides in the same system ranged from 0.0006 to

Card 1/2

ACCESSION NR: AT4037690

0.012 mg/l and that of hydrocarbons from 0.0033 to 0.061 mg/l. The production of carbon monoxide in the algae culture is apparently due to the oxidative breakdown of the tetrapyrrol radical of the chlorophyll molecule. To develop systems of purification of regenerated air by biological means, further study of the mechanisms of formation and dynamics of accumulation of toxic substances during prolonged and continuous cultivation of algae in a closed system will be required.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: PH, LS

NO REF SOV: 003 OTHER: 008

Card 2/2

SHEPELEV, Ye.Ya.

Some problems of the ecology of man in closed systems involving a metabolic cycle. Probl. kosm. biol. 4:169-179 '65.
(MIRA 18:9)

L 24359-66 EWT(1) SCTB DD/RD

ACC NR: AT6003851 SOURCE CODE: UR/2865/65/004/000/0169/0179

32
B+/

AUTHOR: Shepelev, Ye. Ya.

ORG: Department of Biological Sciences, Academy of Sciences USSR (AN SSSR. Otdeleniye biologicheskikh nauk)

TITLE: Certain life support problems of man in a closed ecology system

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 169-179

TOPIC TAGS: bioastronautics, life support system, astrobiology

ABSTRACT: The most promising solution for reducing vital supplies (oxygen, water, and food) to a minimum in spaceships is the development of a life support system in which all life activity products are transformed by other live organisms into their original form. The first stage in such a transformation is the decomposition of organic compounds to their mineral substances as used by plants. However, the activity of plants used for regeneration of atmosphere is not limited to carbon dioxide intake and giving off of oxygen in a confined space. Studies show that unicellular algae and higher plants may be unsuitable for regeneration of atmosphere because at different stages of development

Card 1/2

L 24359-66

ACC NR: AT6003851

they also give off volatile substances -- aromatic oils, various hydrocarbons and others and may include carbon monoxide. Recycling of water and food is also a complex problem. A broad ecological approach in developing a biologically acceptable life support system leads to a number of vital factors which have never been investigated from a health point of view: intensity and composition of solar radiation, gravitational force, and duration of diurnal rhythms. Orig. art. has: none.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 016

Card 2/2

L 11428-65 EWT(1)/EWG(k)/EWT(m)/EPA(sp)-2/EPF(n)-2/EPR/EPA(w)-2/EEC(t)/T/
EWA/EWP(b) Pz-6/Pab-10/Ps-4/Pu-4 IJP(c) AT/JD/JG
ACCESSION NR: AP4048401 S/0181/64/006/011/3279/3287

AUTHORS: Savinov, Ye. P.; Lukirskiy, A. P.; Shepelev, Yu. F. B

TITLE: Concerning the external photoeffect of metallic photocathodes for radiation with wavelength 23.6--113 Angstrom

SOURCE: Fizika tverdogo tela, v. 6, no. 11, 1964, 3279-3287

TOPIC TAGS: x ray irradiation, photoeffect, secondary electron, angular distribution, aluminum, gold

ABSTRACT: The x-ray photoeffect was investigated in the ultrasoft region of the spectrum with an aim at determining the dependence of the quantum yield on the angle of incidence of the radiation on the photocathode, and at measuring the quantum yields of various substances. The monochromatic K_α lines of O, N. C, B, and Be and photocathodes of Al and Au were used. The procedure used to determine

Card 1/3

the absolute quantum yields was similar to that described by the authors elsewhere (Opt. is spektr. v. 9, 505, 1960), but using an improved proportional counter and a more careful choice of the supply voltage for the secondary electron multiplier. The monochromator employed was also similar to one previously used (Opt. i spektr. v. 13, 846, 1962). The experiments have shown that to describe the x-ray photoeffect it is essential to take account of the refraction of the beam in the photocathode, especially at small incidence angles, when reflection takes place. For ultrasoft x-rays, the electron flux attenuates exponentially almost in all cases, except at very small angles incidence, when the deviation from the exponential attenuation can be used to estimate the thickness of the layer from which electrons can be emitted without attenuation. These data agree well with those of H. Kanter and E. J. Sternglass (Phys. Rev. v. 126, 620, 1962). The formula derived for the quantum yield also agrees with the experimental results. Orig. art. has: 8 figures, 4 formulas, and 2 tables.

L 14428-65
ACCESSION NR: AP4048401

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet (Leningrad State University)

SUBMITTED: 22May64 ENCL: 00

SUB CODE: OP, SS NR REF SOV: 009 OTHER: 005

Card 3/3

ACCESSION NR: AP4020935 S/0051/64/016/002/0310/0319

AUTHOR: Lukirskiy,A.P.; Savinov,Ye.P.; Yershov,O.A.; Shepelev, Yu.F.

TITLE: Reflection coefficients for radiation with wavelengths of 23.6 to 113 Angstrom for a number of elements and substances and determination of the refraction indices and absorption coefficients

SOURCE: Optika i spektroskopiya, v.16, no.2, 1964, 310-319

TOPIC TAGS: reflection coefficient, absorption coefficient, titanium, beryllium, carbon, aluminum, chromium, gold, silver, germanium, lithium fluoride, magnesium fluoride, strontium fluoride, potassium chloride, polystyrene

ASBTRACT: In view of the interest in reflection of ultrasoft x-radiation from different substances that can be used for coating diffraction gratings and other optical components, in the present study there were determined experimentally the values of the total external reflection coefficient R of Be,C,Al,Ti,Cr,Ge,Ag,Au,LiF, MgF_2,KCl,SrF_2, polystyrene and F-1 type glass as a function of the angle of incidence (mostly glancing angles in the range under 10°) for radiation of wavelengths 23.6, 31.4, 44, 67 and 112 Å. These are the wavelengths of the MX lines of O,N,C,B

Card 1/3

ACCESSION NR: AP4020935

and Be. The measurements were carried out using a modification of the setup and procedure employed earlier (A.P.Lukirskiy and Ye.P.Savinov,Opt.i spektr.,14,295,1963). The materials for the most part were in the form of 1000 Å thick coatings vacuum evaporated onto glass plates; the halide layers were deposited over undercoatings of Al or Au on glass, mainly to provide the requisite conductivity for subsequent absorption measurements. The results for R are presented in the form of curves (R versus angle of incidence) and in a table. The reflection curves were then used for calculating the index of refraction and the absorption coefficient by means of the usual Fresnel formulas; the results are tabulated. To check the validity of the calculations and accuracy of the results, the absorption coefficients of some of the coatings for the same characteristic wavelengths were measured directly by the transmission method. The results are consistent, but the direct absorption values are systematically higher than the values deduced from the reflection curves. A similar divergence was obtained for copper layers by L.G.Parratt (Phys.Rev.,95,359, 1954), who attributed it to decrease in density of the substance with approach to the surface; this is also assumed to be the reason for the divergences observed in the present case. The results are discussed briefly in a final section. Orig.art. has: 17 formulas, 10 figures and 3 tables.

Card 2/2

ACCESSION NR: AP4038780 S/0048/64/028/005/0866/0871

AUTHOR: Lukirskiy,A.P.; Savinov,Ye.P.; Bry*tov,I.A.; Shepelev,Yu.F.

TITLE: Efficiency of secondary electron multipliers with Au, LiF, MgF_2, SrF_2, BeO, KCl and CsI photocathodes in the 23.6 to 113 Angstrom region /Report, Seventh Conference on X-Ray Spectroscopy held in Yerevan 23 Sep to 1 Oct 1963/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.5, 1964, 866-871

TOPIC TAGS: x-ray detection, radiation detector, electron multiplier, photocathode, photocathode efficiency

ABSTRACT: The quantum efficiency of Au, LiF, MgF_2, SrF_2, BeO, KCl and CsI photocathodes were measured in secondary electron multipliers throughout the ultrasoft x-ray region from 23.6 to 113 A and at grazing angles from 4° to 40° (angles of incidence from 50° to 86°). An absolute accuracy of 15% is claimed for the measurements, and the data presented (except those for the BeO photocathodes, which were not reproducible) are recommended for absolute x-ray intensity measurements to this accuracy. The gold photocathodes were included for comparison, and the other materials were selected as the most efficient photocathodes that are not poisoned by air. The

Card 1/3

ACCESSION NR: AP4038780

LiF, MgF_2, SrF_2, KCl and CsI photocathodes were vacuum deposited on Al films on glass. The BeO photocathodes were prepared by oxidizing a film of Be, vacuum deposited on W or Mo. The BeO photocathodes prepared in this way were not reproducible, however, and only the data for the most efficient BeO photocathode are given. The thickness of the photocathodes was determined interferometrically. The thickness of the Au cathode was 1000 Å; that of the CsI cathode, 5500 Å; and the remaining photocathodes were 2500 Å thick. These thicknesses are greater than the depth from which the photoelectrons can emerge. Tungsten bremsstrahlung was employed for the measurements. The x-ray intensity was measured with an alcohol-argon Geiger counter and a methane proportional counter. The efficiencies of the counters were determined from absorption measurements, data of A.P.Lukirskiy and T.M.Zimkina (Izv.AN SSSR, Ser.fiz.27,104,1963) being employed for the alcohol-argon counter. Curves are presented showing the quantum efficiency of each photocathode at several selected wavelengths as a function of the grazing angle. Most of these curves have a rather sharp maximum at some small grazing angle and are otherwise smooth. Curves are also presented showing the quantum efficiency of each photocathode at 20° grazing angle as a function of the wavelength. These curves show marked fine structure near the absorption edges of the cathode materials but are reasonably smooth between. It is recommended that for any specific application a photocathode be selected for which the

Card 2/3

ACCESSION NR: AP4038780

fine structure lies outside the wavelength region of interest. Orig.art.has: 5 figures and 1 table.

ASSOCIATION: Fizicheskiy fakul'tet Leningradskogo gosudarstvennogo universiteta (Physics Department, Leningrad State University)

SUBMITTED: 00	DATE ACQ: 12Jun64	ENCL: 00
SUB CODE: OP,EC	NR REF SOV: 010	OTHER: 000

Card 3/3

L 61650-65 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) LJP(c) JD/JG
ACCESSION NR: AP5015594 UR/0062/65/000/005/0925/0926
548.73+546.65

22
21
B

AUTHOR: Smolin, Yu. I.; Shepelev, Yu. F.; Bondar', I. A.; Toropov, N. A.

TITLE: Concerning a certain structural type in the series of rare earth oxyorthosilicates

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 5, 1965, 925-926

TOPIC TAGS: rare earth compound, dysprosium compound, holmium compound, ytterbium compound, erbium compound, thulium compound, lutetium compound, rare earth oxyorthosilicate, lattice parameter

ABSTRACT: The article reports on certain results of an x-ray analysis of the oxyorthosilicates of dysprosium, holmium, erbium, and ytterbium ($Ln_2O_3 \cdot SiO_2$). Powder patterns obtained with CuK radiation showed that the oxyorthosilicates were completely isostructural. The unit lattice parameters and space group of the single crystal $YB_2O_3 \cdot SiO_2$ were determined, and the crystal was found to be orthorhombic. The lattic parameters a, b, and c of the oxyorthosilicates of Dy, Ho, Er, Tm, Yb, and Lu were determined and are tabulated. It was found that the oxyorthosilicates [illegible] apparently also belong to the structural type of the other compounds.

Card 1/2

L 61650-65
ACCESSION NR: AP5015594

"A detailed evaluation of the results will be published after a complete determination of the structure of $Yb_2O_3 \cdot SiO_2$, which is now being investigated."
Orig. art. has: 1 table.

ASSOCIATION: Institut khimii silikatov im. I. V. Grebenshchikova Akademii nauk SSSR (Institute of Silicate Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 22Aug64 ENCL: 00 SUB CODE: IC

NO REF SOV: 001 OTHER: 000

Card 2/2

BONDAR', I.A.; TENTSHEVA, T.F.; SHEPELEV, Yu.F.; TOROPOV, N.A.

New rare-earth diorthosilicate $K_3Eu(Si_2O_7)$. Dokl. AN SSSR 160 no.5:1069-1071 F '65. (MIRA 18:2)

1. Institut khimii silikatov im. I.V. Grebenshchikova AN SSSR.
2. Chlen-korrespondent AN SSSR (for Toropov).

L 22988-66 EWT(d)/FBD/FSS-2/EWT(1)/EWP(m)/EEC(k)-2/EWA(d) IJP(c) AST/JKT/GW/BC
ACC NR: AP6012826 SOURCE CODE: UR/0293/66/004/002/0203/0207

AUTHOR: Boguslavskiy, I. A.; Ivashchenko, O. I.; Shepelev, Yu. G. 104 B

ORG: none

TITLE: On control of a space ship with low-thrust engines in acceleration with no information on the current velocity vector

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 2, 1966, 203-207

TOPIC TAGS: astronautics, celestial mechanics, artificial satellite orbit, orbit control, orbit program, satellite control, thrust vector control

ABSTRACT: A possible method of control of a space ship with low-thrust engines in the acceleration phase is described when no information on the velocity vector is available. This method consists in the realization of 1) a system which can determine the real angles of thrust-vector orientation with respect to a planetocentric coordinate system, and 2) a vertical reference which provides the orientation of the planetocentric radius-vector of the space ship in the same coordinate system at any time. Thus, it is possible to stabilize the plane of an osculating orbit with respect, for example, to a planetocentric coordinate system in a position given by the latitude of the ascending node Ω_T and the inclination of the orbit i_T in the sense that it diminishes the discrepancy between the real Ω and i

UDC 629.191

Card 1/3

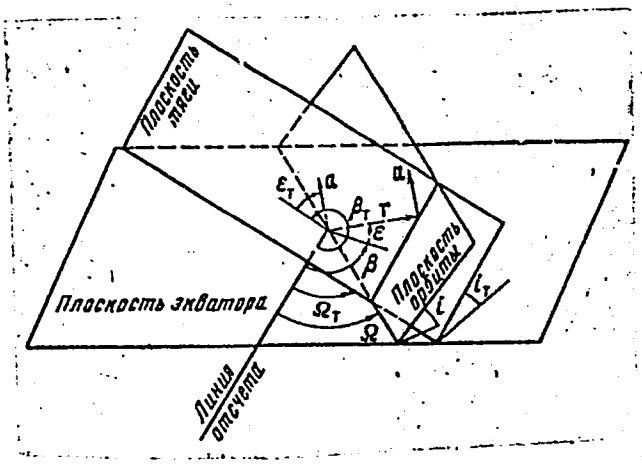


Fig. 1. Coordinate system

and given values Ω_T and i_T (see fig. 1.). The properties of the space ship control described here are analyzed and it follows that transverse orientation of the thrust vector is present if the thrust plane coincides with the plane of osculating orbit. Transverse orientation of the thrust vector in acceleration as it is known from V. V. Beletskiy and V. A. Yegorov (Kosmicheskiye issledovaniya, v 2, no. 3, 1964) leads to an expenditure of energy not different from that with tangential orientation. It is

L 22988-66

ACC NR: AP6012826

shown that the selected control law makes it possible to stabilize the orbit in space with Ω_T and i_T constant. Moreover, when the planetary gravity field differs from the central field, Ω_T and i_T should be certain functions of time in order to make more effective use of energy. Indeed, the expenditure of energy would be used effectively if the total thrust is used for augmentation of the radius vector of the space ship, which is realized when the thrust vector is situated in the plane of an osculating orbit. An expression for the time dependence of Ω_T is derived, assuming that i_T = constant. Thus, if the function $\Omega_T(t)$ is given with sufficient accuracy by the programmer of the control system and Ω_T and i_T are sufficiently close to values of Ω and i at the start of acceleration, the orientation of the thrust vector during acceleration will practically coincide with transverse orientation and the energy expenditures of the space ship in escaping from the earth's influence will practically coincide in both three-dimensional and plane cases. The possibility and difficulty of realizing purely programmed control are disscussed. Orig. art. has: 1 figure and 14 formulas. [AB]

SUB CODE: 22/ SUBM DATE: 23Apr64/ ORIG REF: 003/ ATD PRESS: 4238

Card 3/3

ACCESSION NR: AP4014635 S/0106/64/000/001/0067/0071

AUTHOR: Shepelev, Yu. V.

TITLE: Frequency spectrum of a double-FM signal

SOURCE: Elektrosvyaz', no. 1, 1964, 67-71

TOPIC TAGS: signal frequency spectrum, double FM signal, double FM signal spectrum, radiotelemeter, double FM radiotelemeter

ABSTRACT: Radiocontrol and radiotelemeter systems use special, often rather complicated methods of modulation, including the subcarrier type. In frequency-division radiotelemeter lines, AM-FM and FM-FM modulation methods are widely used. In the present short article, a formula for an FM-FM signal spectrum under conditions of harmonic-voltage modulation is developed. Also, a connection between the FM-FM spectrum width and modulation indices is established. Orig. art. has: 15 formulas.

ASSOCIATION: none

SUBMITTED: 30Jan63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: CG, IE NO REF SOV: 004 OTHER: 001

Card 1/1

ACCESSION NR: AP4039951 S/0191/64/000/006/0056/0059

AUTHOR: Chernobay, A. V.; Shepeleva, A. I.

TITLE: Spectrophotometric analysis of acenaphthylene copolymers

SOURCE: Plasticheskiye massy*, no. 6, 1964, 56-59

TOPIC TAGS: acenaphthylene, acenaphthylene styrene copolymer, acenaphthylene methylmethacrylate copolymer, spectrophotometric analysis

ABSTRACT: This relates to an investigation into the possibility of spectrophotometrically analysing acenaphthylene copolymers with styrene or methylmethacrylate. Copolymerization was conducted in heat resistant ampoules under nitrogen atmosphere, using 0.1% benzoyl peroxide. Dioxane solutions were used for the analyses on spectrophotometer SF-4. The spectra of the monomers, the corresponding polymers, and the copolymers are included. The composition of the copolymers from the adsorption spectra was calculated by the formula for binary mixtures of components in solution: where S is the content of the determined component.

$$S = \frac{k - k_2}{k_1 - k_2} \cdot 100$$

Card 1/2

ACCESSION NR: AP4039951

in the copolymer composition, k, k_1 and k_2 are the specific absorption coefficients of the copolymer and its components. A comparison of the calculated composition with the composition of the initial mixture of monomers gave satisfactory results. The spectra showed that low molecular fractions enriched in styrene or methylmethacrylate are formed during high degrees of monomer conversions. Orig. art. has: 5 figures, 2 tables and 2 equations.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00

SUB CODE: OC NO REF SOV: 007 OTHER: 006

Card 2/2